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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,992	01/16/2002	Mitsuru Uesugi	L9289.02101	9109
24257 7590 11/01/2005 STEVENS DAVIS MILLER & MOSHER, LLP 1615 L STREET, NW SUITE 850 WASHINGTON, DC 20036			EXAMINER	
			ROBERTS, BRIAN S	
			ART UNIT	PAPER NUMBER
			2662	TALER NOMBER
	, =			
			DATE MAILED: 11/01/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)			
	10/030,992	UESUGI ET AL.			
Office Action Summary	Examiner	Art Unit			
	Brian Roberts	2662			
The MAILING DATE of this communication app					
Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 16(a). In no event, however, may a reply be tim iii apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE	l. ely filed the mailing date of this communication. O (35 U.S.C. § 133).			
Status					
1) Responsive to communication(s) filed on 16 Ja	nuary 2002.				
·=	,—				
	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is				
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims					
4)⊠ Claim(s) <u>1-13</u> is/are pending in the application.					
4a) Of the above claim(s) is/are withdrawn from consideration.					
5) Claim(s) is/are allowed.					
6)⊠ Claim(s) <u>1-13</u> is/are rejected.					
7) Claim(s) is/are objected to.	- election requirement				
8) Claim(s) are subject to restriction and/or	relection requirement.				
Application Papers					
9) The specification is objected to by the Examine	r.				
10)⊠ The drawing(s) filed on <u>16 January 2001</u> is/are: a)⊠ accepted or b) objected to by the Examiner.					
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).					
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).					
11)☐ The oath or declaration is objected to by the Ex	aminer. Note the attached Office	Action or form P1O-152.			
Priority under 35 U.S.C. § 119					
12)⊠ Acknowledgment is made of a claim for foreign a)⊠ All b)□ Some * c)□ None of:	priority under 35 U.S.C. § 119(a)	-(d) or (f).			
1. Certified copies of the priority documents have been received.					
2. Certified copies of the priority documents have been received in Application No					
3. Copies of the certified copies of the priority documents have been received in this National Stage					
application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.					
des the attached detailed office action for a flot	or the continue copies not receive	u .			
Attachment(s)					
1) Notice of References Cited (PTO-892)	4) Interview Summary				
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5) Notice of Informal Patent Application (PTO-152)					
Paper No(s)/Mail Date 6) Other:					

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DETAILED ACTION

Claims 1-13 have been examined.

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on the applications filed in Japan on 05/22/2000 and 03/19/2001. It is noted, however, that applicant has not filed a certified copy of the applications 2000-150507 and 2001-078466 as required by 35 U.S.C. 119(b).

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

- 3. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 - The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 4. Claim 10 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - In reference to claim 10

The phrase "a power of 2 - 1" is unclear and indefinite. The examiner cannot ascertain the meaning of the phrase from the claim or the specification.

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Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- 6. Claims 1 and 3-13 are rejected under 35 U.S.C. 102(a) as being anticipated by "Optimization of an Adaptive Link Control Protocol for Multimedia Packet Radio Networks" by J.R. McChesney and R.J. Saulitis, hereafter, McChesney et al.
 - In reference to claim 1, 12 and 13

In Figure 3, McChesney et al. teaches

- A destination radio estimates the channel quality of a communication link
 upon receiving a message packet from a source radio. The destination radio
 transmits the channel quality measurements to the source radio in an ACK or
 NACK. (pg. 263, column 2, paragraph 3)
- The source radio receives the ACK or NACK and learns the value of the channel quality information. The source radio utilizes the channel quality information to determine the power level and information rate for the next transmission to the destination radio. (pg. 263, column 2, paragraph 3)
- In reference to claim 3, 8, 9, and 10, as best understood

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In Figure 4, McChesney et al. further teaches the source radio adapting the power level and information rate according to such parameters as the SNR, BER, number of tracked paths, PDSQ, interference on the channel, communication range, traffic load variance, and radio electrical performance to a optimize the retransmission of the data. (pg. 263, column 2 paragraph 1 – pg. 264, column 1, paragraph 2)

- In reference to claim 4 and 5

In Figure 3, McChesney et al. further teaches the source radio pre-assigning transmission parameter in the LLC Table and utilizing the parameters to transmit data until the destination radio transmits a ACK or NACK that includes the quality measurements. The source radio updates the transmission parameters and transmits the next data utilizing the updated transmission parameters.

In reference to claim 6 and 7

In Figure 3, McChesney et al. further teaches the destination radio transmitting the signal quality in a NACK packet that indicates an error. The source radio receives the NACK and adjusts the transmission parameters according to the signal quality measurement information transmitted in the NACK for retransmission of the data.

In reference to claim 11

In Figure 3, McChesney et al. teaches:

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 A source radio transmitting an RTS (first signal) to a destination radio includes the proposed symbol rate, code rate, and a transmission power level in the RTS (pg. 263, column 1, paragraph 4)

- The destination radio transmits to the source radio a NACK (second signal) that contains signal quality measurement (third signal) (pg. 263, column 2, paragraph 3)
- The source radio utilizes the received signal quality measurements for the next transmission (pg. 263, column 2, paragraph 3)

Claim Rejections - 35 USC § 103

- 7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 8. Claim 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Optimization of an Adaptive Link Control Protocol for Multimedia Packet Radio Networks" by J.R. McChesney and R.J. Saulitis, hereafter, McChesney et al.
 - In reference to claim 2

McChesney et al. further teaches that the source radio utilizes the channel quality information to determine the power level and information rate for the next transmission to the destination radio. (pg. 263, column 2, paragraph 3)

McChesney et al. does not explicitly teach retransmitting the data at a maximum transmission capacity if the capacity necessary for demodulation is greater than the maximum transmission capacity.

In Figure 4, McChesney et al. teaches adapting the power level and information rate according to such parameters as the SNR, BER, number of tracked paths, PDSQ, interference on the channel, communication range, traffic load variance, and radio electrical performance to a optimize the throughput efficiency and throughput rate. (pg. 263, column 2 paragraph 1 – pg. 264, column 1, paragraph 2)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of McChesney et al. to include the source radio transmitting the packets at the maximum transmission rate according the channel quality information communicated to the source radio by the destination radio and because it allows the optimization of the throughput efficiency and throughput rate within the system.

Conclusion

- 9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:
 - Dirschedl et al. (US 6262994) teaches an arrangement for the optimization of the data transmission via a bi-directional radio channel.

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• Khan et al. (US 6367045) teaches a bandwidth efficient acknowledgment/

negative acknowledgement in a communication system using automatic

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repeat request.

10. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Brian Roberts whose telephone number is (571) 272-

3095. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

BSR

10/28/2005

JOHN PEZZLO
PRIMARY EXAMINER